

VIII. Claims Appendix (37 C.F.R. § 41.37(c)(1)(viii))

1. (Previously Presented) A method for forming a copper interconnect layer, comprising:

forming a first copper region over a semiconductor;
forming a low K dielectric layer over said copper region;
forming a plurality of vias in a first region of said low K dielectric layer;
forming a trench with a first edge in said low K dielectric layer over said plurality of vias wherein said trench extends a minimum length of 0.2 μm beyond the edge α of a via closest to the first edge of said trench; and
filling said trench and said plurality of vias with copper.

2. (Original) The method of claim 1 wherein said trench is formed with a first depth d1 in said first region and a second depth d2 at said trench edge wherein d1 is greater than d2.

Claim 3 (Canceled)

4. (Previously Presented) The method of claim 1 wherein said plurality of vias are separated by a distance less than 1.0 μm .

Claims 5-8 (Cancelled)

9. (Original) A method for forming integrated circuit copper interconnects, comprising:

forming a first copper region over a semiconductor;
forming a low K dielectric layer over said copper region;
forming a plurality of vias in a first region of said low K dielectric layer wherein said plurality of vias are separated by a distance less than 1.0 μm ;

forming a trench with a first edge in said low K dielectric layer with a first depth d1 in said first region and a second depth d2 at said trench edge over said plurality of vias wherein d1 is greater than d2, and said trench extends a minimum length of 0.2um beyond the edge α of a via closest to the first edge of said trench; and

filling said trench and said plurality of vias with copper wherein said copper used to fill said vias contacts said first copper region.

IX. Evidence Appendix (37 C.F.R. § 41.37(c)(1)(ix))

No additional evidence not already part of the official record is relied upon in the arguments provided herein.

X. Related Proceedings Appendix (37 C.F.R. § 41.37(c)(1)(x))

Not applicable.